

What is claimed is:

1. An optical device for detecting an edge of a medium in hard copy devices, comprising an extension which engages the medium and oscillates simultaneously on two pivots, 65 each of which engages a respective guiding groove.

2. An optical device as claimed in claim 1, which comprises an optical sensor and a pivoting element pivoting on

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the two rotation pivots which are incorporated therein a certain distance apart, wherein said guiding grooves are shaped as independent and curved, said pivoting element comprising said first extension of the optical device and a second extension; the first extension engaging, at its front 5 and rear edges, the edges of the medium during forward and rearward movements of the medium; the second extension moving into and out of an opening of the optical sensor in a manner corresponding to the rotary movements of the pivoting element brought about by the movements of the 10 medium.

3. An optical device as claimed in claim 1, wherein the first extension has a flattened structure defining opposite edges.

4. An optical device as claimed in claim 2, wherein the 15 centroid of the pivoting element: is disposed below the line joining its two rotation pivots, bringing about a self-centring effect of the rotation pivots on the lower ends of the respective grooves.

5. An optical device as claimed in claim 1 wherein the 20 grooves are shaped as arcs of circles and disposed in opposition to one another, each of them defining an upper and a lower travel limit for their respective rotation pivot.

6. An optical device as claimed in claim 5, wherein the 25 geometrical centre of each of the grooves is disposed at the lower end of the opposite groove.

7. A hard copy device comprising an input guide for media and an optical device for detecting an edge of a medium arranged above the input guide, whereby a first extension of the optical device contacts the medium, extends 30 downward towards said input guide and oscillates simultaneously on two pivots.

8. The hard copy device as claimed in claim 7, which further comprises a front element for deflecting the media when it is output from the hard copy device, wherein such 35 front element incorporates said optical device.

9. The hard copy device as claimed in claim 7, wherein the first extension of the optical device engages the medium on the face which is opposed to the one intended to receive the printing.

5 10. The hard copy device as claimed in claim 7, wherein each of said two pivots engages a respective guiding groove.

11. The hard copy device as claimed in claim 7, wherein the optical device comprises an optical sensor and a pivoting element pivoting on the two rotation pivots which are
10 incorporated therein a certain distance apart, wherein said guiding grooves are shaped as independent and curved, said pivoting element comprising said first extension of the optical device and a second extension; the first extension engaging, at its front and rear edges, the edges of the
15 medium during forward and rearward movements of the medium; the second extension moving into and out of an opening of the optical sensor in a manner corresponding to the rotary movements of the pivoting element brought about by the movements of the medium.

20 12. The hard copy device as claimed in claim 7, wherein the first extension has a flattened structure defining opposite edges.

13. The hard copy device as claimed in claim 11, wherein the centroid of the pivoting element is disposed below the
25 line joining its two rotation pivots, bringing about a self-centring effect of the rotation pivots on the lower ends of the respective grooves.

14. The hard copy device as claimed in claim 10, wherein the grooves are shaped as arcs of circles and disposed in
30 opposition to one another, each of them defining an upper and a lower travel limit for their respective rotation pivot.

15. The hard copy device as claimed in claim 10, wherein the geometrical centre of each of the grooves is disposed at the lower end of the opposite groove.

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